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THE NORTH AMERICAN LITTORELLA.

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ONE of the rarest plants of the North American flora is the peculiar little member of the *Plantaginaceae* which is called in our floras *Littorella uniflora* (L.) Asch. The plant is known from only a few sandy or muddy shores from Newfoundland to Minnesota and, ever since its original discovery on this continent in 1868, it seems to have been treated without question as identical with the European species, *L. uniflora*. This treatment, originating when the plant was very little known in America and material inadequate, can no longer be maintained, since we now have sufficient material of the North American plant to show that it is constant in its characters and that in nearly every feature it is distinct from the European *L. uniflora*.

The latter plant, which apparently is less rare in Europe than is its representative in America, has a stoutish rootstock, shown in *Flora Danica* or in the *English Botany* as about 0.5 cm. in diameter; the American plant having the rootstock filiform. The European plant has many of the roots thickened and cord-like, becoming almost fusiform; the American has them all filiform. In the European species the leaves are subterete or semi-cylindric and 0.3–1.5 dm. long, with a conspicuously dilated and sheathing scarious stipular base. The American plant, on the other hand, has the leaves flattish, 1.5–5 cm. long, with the scarious base very narrow. In the European species the peduncles of the staminate flowers are 1–6 cm. long, the calyces 4–7 mm. long, with lanceolate segments; and the filaments are 2–4 cm. long, the anthers 2.5–3 mm. long. In the American plant the peduncles of the staminate flowers are only 0.7–2 cm. long; the

calyx 2.5–4 mm. long, with oblong segments; the filaments 0.7–1.2 cm. long, and the anthers 2–2.4 mm. long. The European plant fruits freely, the fruits protruding from the leaf-axils, many of the European specimens showing perfectly mature fruit in late June, July and August, while some of the staminate flowers are still in anthesis; but little of the American material, collected even as late as August and September, shows any trace of mature fruit. Such mature achenes as have been found in the American material show, however, that, whereas the European *L. uniflora* has the thick-oblong pale-brown achene coarsely rugose, the North American plant has the more slender blackish achene nearly smooth or at most barely rugulose. The North American plant is, therefore, distinct from the European in many of its most important characters and it is here proposed as

LITTORELLA americana, n. sp., *L. uniflorae* habitu floribusque simile; rhizomate radicibusque filiformibus; foliis planiusculis falcato-arcuatis vel rectis 1.5–5 cm. longis basi scariosa angusta; pedunculis florum masculorum 0.7–2 cm. longis nudis vel 1-bracteatis, bractea plerumque supra medium; calycibus 2.5–4 mm. longis, segmentis oblongis; filamentis 7–12 mm. longis; antheris 2–2.4 mm. longis; acheniis anguste oblongis 2 mm. longis 0.6 mm. crassis nigrescentibus sublaevibus vel rugulosis.

Similar in habit and flowers to *L. uniflora*: rhizome and roots filiform: leaves flattish, falcate-arcuate or straightish, 1.5–5 cm. long; the scarious base narrow: peduncles of staminate flowers 0.7–2 cm. long, naked or 1-bracteate; the bract usually above the middle: calyx 2.4–4 mm. long; the segments oblong: filaments 7–12 mm. long: anthers 2–4 mm. long: achenes narrowly oblong, 2 mm. long, 0.6 mm. thick, blackish, smoothish or rugulose.—Sandy or muddy shores of lakes, ponds and quiet streams, Newfoundland and Nova Scotia to Minnesota. NEWFOUNDLAND: muddy banks of Exploits River near the mouth of Badger Brook, August 13, 1894, *Robinson & Schrenk*, no. 1; sandy and gravelly shores of ponds, Whitbourne, August 8, 1911, *Fernald & Wiegand*, no. 6219. NOVA SCOTIA: Grand Lake, July 15, 1879, *Elizabeth G. Knight*. MAINE: Chemo Pond, Bradley, September, 1891, *F. P. Briggs*. VERMONT: shore of Lake Champlain, Alburgh, September 2, 1879, *C. G. Pringle*; abundant, but local, at Spectacle Pond, Wallingford, July 7 and September 4, 1898, *W. W. Eggleston & E. C. Kent* (TYPE in Gray Herb.); July 11, 1899, *Eggleston*; Notch Pond, Ferdinand, August 2–12, 1899, *Eggleston*, no. 1539. ONTARIO: Ship Island in Gull Lake, Victoria Co., July 29, 1868, *J. Macoun*. MINNESOTA: Basswood Lake, July 28, 1886, *L. H. Bailey*, no. 437.

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